

Live Fire Training: Lifeblood for the Light Infantryman

**A Monograph
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While it appears that the role of the U.S. Army is changing from exclusively fighting and winning the nation's wars to becoming the force provider for numerous support and stability operations, the potential to become entangled in low intensity close combat has increased dramatically as global instability mounts. The senior leadership of the Army is moving to adopt revolutionary technological advances, which arguably cast doubt on whether future close combat is even necessary. Victory is presumed to be achieved by the massing of combined arms synergy from "stand-off" ranges. However, history is full of examples where the most technologically advanced combatant has lost to the combatant that is the best trained and that possesses the greatest level of cohesion, unity, and esprit de corps. All the advantages mentioned are the by-products of tough, realistic maneuver live-fire training at the unit level. The monograph examines the question whether the United States (U.S.) Army's light infantry maneuver live-fire training is sufficient to warrant a first fight victory. Live-fire training currently mandated by the Training and Doctrine Command (TRADOC) is identified along with the amount of ammunition allocated to light infantry battalions for such training. Also discussed in depth are the by-products of maneuver live-fire training and the leadership training that should provide the Army with intuitive, confident leaders into 2010 and beyond. Finally, discussion will describe current trends at the Joint Readiness Training Center in both force-on-force and maneuver live-fires. The monograph concludes that currently mandated live-fire training and ammunition allocations are adequate for the U.S. Army's light infantry to be assured a first fight victory. However, recommendations are made on changing Army training methodology which at present is extremely dogmatic and stifles initiative, and hinders the ability to properly fire and maneuver infantrymen and their supporting weapons.

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ABSTRACT

LIVE FIRE TRAINING: LIFEBLOOD FOR THE LIGHT INFANTRYMAN by MAJ

Albert C. Stahl, USA, 59 pages.

While it appears that the role of the U.S. Army is changing from exclusively fighting and winning the nation's wars to becoming the force provider for numerous support and stability operations, the potential to become entangled in low intensity close combat has increased dramatically as global instability mounts.

The senior leadership of the Army is moving to adopt revolutionary technological advances, which arguably cast doubt on whether future close combat is even necessary. Victory is presumed to be achieved by the massing of combined arms synergy from "stand-off" ranges.

However, history is full of examples where the most technologically advanced combatant has lost to the combatant that is the best trained and that possesses the greatest level of cohesion, unity, and esprit de corps. All the advantages mentioned are the by-products of tough, realistic maneuver live-fire training at the unit level.

The monograph examines the question whether the United States (U.S.) Army's light infantry maneuver live-fire training is sufficient to warrant a first fight victory. Live-fire training currently mandated by the Training and Doctrine Command (TRADOC) is identified along with the amount of ammunition allocated to light infantry battalions for such training. Also discussed in depth are the by-products of maneuver live-fire training and the leadership training that should provide the Army with intuitive, confident leaders into 2010 and beyond. Finally, discussion will describe current trends at the Joint Readiness Training Center in both force-on-force and maneuver live-fires.

The monograph concludes that currently mandated live-fire training and ammunition allocations are adequate for the U.S. Army's light infantry to be assured a first fight victory. However, recommendations are made on changing Army training methodology which at present is extremely dogmatic and stifles initiative, and hinders the ability to properly fire and maneuver infantrymen and their supporting weapons.

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Chapter 1

Introduction

“Fighting and winning our nation’s wars, this is our non-negotiable contract.”¹

Eric K. Shinseki

General, United States Army

Chief of Staff

Since the beginning of warfare, armies have fought battles of attrition. The victor was usually the combatant that provided the best trained, most cohesive and motivated forces, not necessarily the best equipped. Battles were decided in favor of the units that provided accurate, responsive and overwhelming fires to destroy the enemy forces. In contrast, there is a growing modern belief that Army forces can fight a standoff war, remaining beyond the reach of the enemy’s direct fire systems, thus reducing or even eliminating friendly force casualties.

However, the battle of attrition may not be a thing of the past. The core competency of an army should be its ability to close with and defeat/kill the enemy.² This is a competency the U.S. Army, and especially the light infantry, appears to be taking for granted. Reliance on technology appears to be taking priority over realistic maneuver live fire training. Rather than stress unit combat effectiveness, the senior leadership of the U.S. Army is focused on transforming

¹ Quote from the Army Chief of Staff’s guest lecture to CGSOC Class 2001 on 1 Nov 2000 at Fort Leavenworth, Kansas.

² Huba Wass de Czege, BG USA Ret., “Closing with the Enemy: The Core Competency of an Army,” *Military Review* LXXX, no. 3 (2000): 9 (Hereafter cited as Wass de Czege)

the force to be more efficient by acquiring more lethal firepower, more effective protection, better situational awareness, sustainment and strategic responsiveness.

Transformation/reorganization may be exactly what the Army needs to do. But a Roman centurion named Petronius Arbiter said in 210 B.C. “We trained hard, but it seemed that every time we were beginning to form up into teams, we would be reorganized. I was to learn latter in life that we tend to meet any new situation by reorganizing: and a wonderful method it can be for creating the illusion of progress while producing confusion, inefficiency, and demoralization.”³ It is as if the ancient Roman is observing the U.S. Army of 2000! Army leaders must evaluate whether current transformation efforts are to come at the cost of a generation of junior officers and non-commissioned officers being trained and promoted without having maneuvered soldiers in realistic live fire training.

The maneuver live fire training that infantry fire teams, squads and platoons conduct is the key to successful “first fight” victories. Procurement of millions of dollars of high technology enablers cannot replace the requirement for hardened fighting soldiers to seize and hold ground in close combat.

Some aspects of dismounted warfare have changed little in the past eighty years. The infantryman still shoots with iron sights, early detection of minefields and boobytraps remains difficult, and night attacks are still conducted using the same doctrine, tactics, techniques and procedures of decades ago. In an effort to improve capabilities, improved aiming devices and night vision equipment have

³ Anthony Kellett, *Combat Motivation: The Behavior of Soldiers in Battle* (Boston MA: Kluwer Nijhoff Publishing, 1982), 43 (Hereafter cited as Kellett).

been thrust upon the light infantryman.⁴ Unfortunately, the new equipment comes with no resourcing of additional ammunition to conduct familiarization and proficiency training. In spite of the availability of expensive, sophisticated night vision equipment and other technological advances, light infantry needs constant, tough, realistic training to remain effective and confident with their teams and with weapon systems.

Many military and civilian leaders appear to have in the backs of their minds a dark suspicion that in fact the close fight really is a thing of the past. There appears to be a deep-seated feeling that the distant and cold-blooded technician now controls the battlefield and the hot-blooded warrior is an anachronism.⁵ If true, the change in the nature of war empowers the enemy to decide when to quit. He can simply dig in and endure if he feels his purposes are important enough.⁶ This amount of control by the enemy is unacceptable. The U.S. must have the power to force the enemy to quit, which ultimately depends on the infantryman on the ground in close combat. In this vein, there is a perception that the quality of training, equipment and doctrinal concepts for future close ground combat is suffering.

Just what is to be the nature of future war? Will victory come from cybernetic shock? Will it come from the use of some advanced technology, with eye in the sky sensors digitally linked to some standoff precision guided

⁴ Jerry A. White, MG, "The Future Infantry – An Assessment," *Infantry Magazine* v. 83, no. 4 (1994): 1.

⁵ Paddy Griffith, *Forward into Battle: Fighting Tactics from Waterloo to the Near Future* (Novato, CA: Presidio Press, 1990) 181.

⁶ Wass de Czege, 9.

munitions? Is the point coming where victory will be determined through “standoff” reconnaissance, standoff fighting and standoff battle damage assessment? Is it to be accepted that long-range technology has finally become decisive?

No matter what technology brings to the battlefield, one must not lose sight of an enduring truth: essentially war is fighting, for fighting is the only effective principal in the manifold activities designated as war.⁷ The only way to ensure a decisive outcome is through close combat with the enemy: hold a piece of ground, secure a population center, and destroy enemy units. To destroy the enemy at the tactical level, “ground forces have to close to zero meters and beyond.”⁸

The Army’s light infantry is the only force that can close to zero meters and beyond. But, just how prepared are the Army’s light infantrymen? Are the light divisions truly C-1? Is their live fire training sufficient to prepare them for the country’s next first fight? The mission of the military professional in an age of peace is to ensure that he and his subordinates are prepared for war. Fighting and getting soldiers to fight well is the Army’s primary job and must be treated as such.

Fire, or the ability to fire, is the ultimate arbiter of combat and is essential to all patterns of attrition, maneuver and cybershock. It is the infantryman who fires at the enemy and maneuvers towards him. It is the infantryman who must

⁷ John M. Spiszer, MAJ, USA, “Leadership and Combat Motivation: The Critical Task,” *Military Review* LXXXIX, no. 3 (1999): 66 (Hereafter cited as Spiszer).

⁸ Wass de Czege, 8.

maneuver, wear down or bring to bear destructive power to shock, annihilate or exhaust the enemy on the battlefield. The training focus must be on infantry soldiers who actually fire at the enemy.

The Army continually magnifies the role of machines and technology in war, while minimizing the importance of well-trained foot soldiers. The effectiveness of a light infantry brigade combat team can be distilled to the capabilities of the fire teams that constitute the light infantry rifle platoons, to the level of their training and of their leadership. The most crucial rifle platoon training is conducted on maneuver live-fire ranges during day and night situations, where the next battle is practiced and either won or, most often, lost!

Much current speculation implies that technology, information superiority and automated command and control processes are the sole keys to battlefield supremacy in the 21st century. But is this true? Can technology, both current and future, combined with the “Objective Force” concept, provide the absolute answer to future warfare? Or is the answer much simpler?

Technological superiority alone has never won a war and will never completely replace the soldier combatant. Training must be the cornerstone for future combatants who must wage the “close fight,” and realistic live-fire training must be included. Ardant du Picq illuminates the importance of maneuver life-fire training in a peace time army: “For me as a soldier, the smallest detail caught on the spot and in the heat of action is more instructive than all the Thiers and Jominis in all the world.”⁹

⁹ Ardant du Picq, COL, *Battle Studies* (Harrisburg, PA: The Military Service Publishing Company, 1946/1958) viii.

Light infantry units in war will become disoriented, leaders will be confused and killed, weather will foul plans, equipment will malfunction, and the enemy will not cooperate. Revolutionary changes in technology, doctrine and organization cannot erase such friction in war. Quality live-fire training is the lubricant for reducing friction on the close combat battlefield. If this lubricant is missing, the light infantry performance on tomorrow's battlefield remains questionable.

From all indications, past and present, there will be a place for the infantryman and his traditional skills on the battlefield of tomorrow. To prevail under all circumstances, outnumbered and outgunned, the infantryman will doubtlessly have to rely on brainpower as his primary weapon. He must believe that superior training, endurance and tactical skill can compensate for quantity.¹⁰

The infantryman in peacetime must learn his trade in the most realistic live-fire training that can be provided. It is in this type of high risk, high payoff training that bonds are established, where individuals become fire teams, fire teams become squads, and squads turn into unified, cohesive platoons. The interrelationships of the infantry soldier and his rifle squad are absolutely vital in determining the soldiers' willingness to fight for the squad, in strengthening his resistance to psychiatric break down, and in forging his relationship with the formal structure of the army.¹¹

Is the Army's mandated maneuver live-fire training enough for our young soldiers and small unit leaders to develop esprit de corps, unity, moral and,

¹⁰ John A. English, *On Infantry* (New York, NY: Praeger Publishers, 1981) 224 (Hereafter cited as English).

¹¹ Kellett, 41.

above all, cohesion to consistently win the first fight? History proves that armies do not win wars by means of a few groups of super-soldiers, but by the overall average quality of their standard units.¹²

¹² English, 160.

Chapter 2 Doctrine

“It often happens, that those who discuss war, taking the weapon for the starting point, assume unhesitatingly that the man called to serve it will always use it as contemplated and ordered. Man is flesh and blood; he is body and soul. – Ardant du Picq ¹³

The over-arching U.S. Army document that guides/dictates live-fire training and ammunition allocation is Department of the Army Pamphlet 350-38, published 3 July 1997. The pamphlet is commonly referred to as the “STRAC” manual, which stands for Standards in Training Commission.

The manual applies to the weapons and weapon systems used in both the Active component and the Reserve component. The manual sets forth gunnery training standards for qualification along with suggested training strategies to achieve the standards for individuals, crews, teams, and squads. Specific guidance is also provided on ammunition requirements to execute the suggested training strategies.

The proponent for the manual is the Deputy Chief of Staff for Army Operations and Plans, who is also the STRAC chairman. The chairman directs the program and reports directly to the Vice Chief of Staff, Army. The chairman is supported by the STRAC General Officer Steering Committee, with members from the Army staff, from the Major Commands (MACOM), from TRADOC Headquarters, and from the Commandants of the TRADOC proponent schools.

¹³ du Picq, 39.

The General Officer Steering Committee reviews recommendations from the STRAC Weapons Committee.

The commandants of the Air Defense, Armor, Aviation, Engineer, Field Artillery and Infantry schools compose the Weapons Committee, along with the MACOM representatives. The committee plans and develops weapon training standards and strategies that support the proponents and combined arms training. The standards and strategies are integrated and reviewed by a STRAC Council of Colonels, then forwarded to the General Officer Steering Committee for final approval.¹⁴

In addition to providing qualification standards and training strategies, the STRAC manual also provides field commanders two other key sets of standards:

1. Measurable standards for evaluating their overall training readiness.
2. Information for forecasting annual ammunition requirements.¹⁵

Training Readiness Conditions (TRC) are defined in the manual to deal with the especially complicated aspect of frequency of live-fire training. The TRC's are training readiness levels with "prescribed (mandatory) standards, notional training strategies and generic training resource requirements."¹⁶ In general, active component units are designated TRC A and National Guard enhanced brigade units are designated as TRC B. The TRC A units have a

¹⁴ Department of the Army, *DA PAM 350-38 Standards in Weapons Training* (Washington, D.C.: United States Government Printing Office, 1997) 1 (Hereafter cited as DA PAM 350-38).

¹⁵ DA PAM 350-38, 1.

¹⁶ DA PAM 350-38, 1.

larger ammunition allocation and are mandated to conduct live-fires at a higher rate of frequency (see figures 1 and 2).

Event	Rounds Per Event	Freq by TRC	
		A	B
Preliminary Marksmanship Training	EST/Wpneer/MAC	4	4
Zero ¹	18 Ball	2/3 ⁴	1
Practice Fire ¹	40 Ball	2/3 ⁴	1
Record Fire ¹	40 Ball	2/3 ⁴	1
NBC Practice ¹	20 Ball	2	1
NBC Record ¹	20 Ball	2	1
Night Practice ²	20 Ball/10 Tracer	2	1
Night Record ²	20 Ball/10 Tracer	2	1
NVS Zero	18 Ball	2	0
Advanced Skills	100 Ball	2	0
Fire and Move LFX	16 Ball/4 Tracer	4	1
Sqd/Plt LFX	130 Ball/20 Tracer	6	1
CALFEX	120 Ball/10 Tracer	1	0
Sqd/Plt/Co FTX/STX	120 Blank	4	2
BN FTX	120 Blank	2	0
EXEVAL (ARTEP)	120 Blank	2	1
DRF Prep Fire ³	18 Ball		
Total Rounds Per Rifle:			
Ball		1556/1654	324
Tracer		186	44
Blank		960	360

Notes:

1 For these events 5.56 SRTA for 5.56 service ammunition if required to fire on alternative course. The M2 bolt assembly is required when using the SRTA and the M261 Rim Fire Adapter (RFA) is required when using .22 Cal ammunition. Reference FM 23-9, JUL 89. These substitutes will only be used when service caliber firing is not feasible based on resources available and unit METL. Can be used on 25 meter indoor/outdoor range.

2 Night fire, use 20 Ball and 10 Tracer rounds for firing night fire to standard (FM 23-9).

3 DRF Preparatory FIRE: 18 Ball to confirm zero. Requests are based on frequency of alert status.

4 Soldiers equipped with the Close Combat Optic (CCO) qualify two times with CCO and once with iron sights

FIGURE 1: M16A1/A2 Rifle/M4 Carbine (Category I) Ammunition/Training Strategy¹⁷

¹⁷ DA PAM 350-38, 91

The individual light infantry soldier who is assigned a M16A2 or M4 carbine is authorized/mandated to live-fire 1556 to 1654 rounds of 5.56mm ball ammunition and 186 rounds of 5.56mm tracer, or approximately 1800 rounds of live ammunition every fiscal year.¹⁸ The readiness requirement is somewhat astonishing when compared to Napoleons training guidance to the Grand Armee of 1812 for new recruits to fire one live round and three blank before being placed into a line unit.¹⁹

Of special interest in figure 1 is the frequency of live-fire training mandated for the active component infantryman. He is to qualify with his weapon bi-annually, both day and night, and is required to conduct eleven fire and maneuver exercises with live ammunition. This would seem to the casual observer to be more than adequate to ensure a trained and ready light force. But, what should worry both the casual observer and the military professional is the extremely low ammunition allocation and training frequency for TRC B units. Their ammunition allocation is fully 75 percent less than the active component, and their training frequency is about one event per year. It should be noted, the enhanced brigades are supposedly just a step behind the active infantry brigades on the readiness tier, and, if the active component is unable to sustain the “Band of Excellence,” how well off are the enhanced brigades? The next chapter will discuss whether the light infantry divisions are able to execute live-fire training in accordance with Army regulations. The answer will be disturbingly clear.

¹⁸ DA PAM 350-38, 91.

¹⁹ Reinwald, Brian R. Major, “Tactical Intuition,” *Military Review*, LXXX, no. 5, (2000): 86. (Hereafter cited as Reinwald).

The light infantry divisions are:

1. 10th Mountain Division (light), Fort Drum, New York
2. 25th Infantry Division (light) Schofield Barracks, Hawaii
3. 82nd Airborne Division, Fort Bragg, North Carolina
4. 101st Airborne Division (Air Assault) Fort Campbell, Kentucky

All the light divisions conduct their weapons qualifications and maneuver live-fire training in accordance with DA Pamphlet 350-38. The commanders and staffs of the light divisions determine annual training ammunition requirements and authorizations for their subordinate units using the standards and notional (suggested) strategies in DA Pamphlet 350-38.

Chapter 5, Infantry Weapons Systems, of DA Pamphlet 350-38, states the objective of the manual is to assist field commanders to attain and sustain TRC standards and to ensure acceptable levels of weapon proficiency are developed in all units.²⁰ The STRAC manual incorporates a wealth of input from the MACOMs and from the TRADOC proponent schools. The guidance on ammunition and training frequencies provide a methodical, valid approach to achieving the Army training goal of a combat-ready force prepared to mobilize and deploy on short notice, and to fight and win.

The STRAC manual indicates to the Division commander the frequency with which he must have Infantry units and supporting weapons systems conduct live-fires (see figure 2). The division commander publishes his yearly training guidance and subsequently issues his quarterly training guidance. Subordinate infantry units down to battalion level then issue guidance for training which

²⁰ DA PAM 350-38, 56.

M21/M24 Sniper Rifle	-TRC A / Zero monthly -Qualification and night fire quarterly -# Rounds/FY: 694	-TRC B / Zero quarterly -Fire Qualification and night fire within past four months -# Rounds/FY: 418
M16A2/M4A Rifle	-TRC A / 90% of soldiers will have met standards within past six months. Each rifle squad will have participated in a LFX within the past three months. -# Rounds/FY: 1742	-TRC B / 80% of soldiers will have met standards within the past training year. Each rifle squad will have participated in a LFX within the past training year. -# Rounds/FY: 368
M249 Automatic Rifle	-TRC A / 90% of gunners will have met standards within past six months. Each gunner will have participated in a LFX within the past three months. -# Rounds/FY: 2964	-TRC B / 80% of gunners will have met standards within the past training year. Each gunner will have participated in a LFX within the past training year. -# Rounds/FY: 712
M60/M240B Machine Gun	-TRC A / 90% of assigned MG/AG will have qualified: -Machine gunners within past 6 months -Assistant machine gunners within last year Each gunner will have participated in a LFX within the past three months. -# Rounds/FY: 4304	-TRC B / 80% of assigned MG/AG will have qualified: -Machine gunners within past training year -Assistant machine gunners within past two training years Each gunner will have participated in a LFX within the past training year. -# Rounds/FY: 1836
M203 Grenade Launcher	-TRC A / Must have met M16 requirements also. 90% of grenadiers will have met standards in last six months. Each grenadier will have participated in a squad/platoon LFX within the past three months. -# Rounds/FY: 6 HE 156 TP <u>30 WSP</u> 192	-TRC B / 80% of grenadiers will have met standards within past training year. Each grenadier will have participated in a squad/platoon LFX within the past training year. -# Rounds/FY: 3 HE 36 TP <u>5 WSP</u> 44

FIGURE 2: Weapon System Training Frequency²¹

reflects that of the Division commander. The Division also issues its Mission Essential Task List (METL) which is a compilation of tasks critical for wartime mission accomplishment.²² The METL forms the basis for the organizational

²¹ DA Pam 350-38, 51, 68, 88, 91.

²² Department of the Army *Field Manual 25-101* Battle Focused Training, (Washington, D.C.: United States Government Printing Office, 1988) 2-3. (Hereafter cited as Field Manual 25-101).

training plans. After the mission essential tasks have been identified, commanders establish supporting tasks and conditions for each task.

Because the Army recognizes the value and the importance of live-fire training, an abundance of doctrinal reference material is already in existence to support and assist the unit in planning live-fires. Field Manual (FM) 25-101, Battle Focused Training, concerns the assessment and evaluation of this training. The field manual's Mission Training Plans (MTPs) provide realistic models to use in developing scenarios, along with appropriate training and evaluation outlines (TEOs) for all critical tasks and sub-tasks (see appendix A). A familiar phrase often quoted in the Army is found in FM 25-101, "Train as you fight and fight as you train." It seems to be repeated less and less today and more often replaced with the injunction to train as you fight when you have time, which is not very often.

The Army's commitment to live-fire training can also be found in every divisional training regulation. An example from the 10th Mountain Division is as follows:

Infantry Battalion with combat support and combat service support

slice: One combined arms live-fire exercise (CALFEX) every 18 months.

Infantry Company: One CALFEX, one fire control exercise (FCX), and one live-fire exercises (LFX) per year.

Infantry Platoon: Four LFXs per year.

Infantry Squad: Four LFXs per year.²³

In theory this broad guidance gives subordinate commanders flexibility to tailor their live-fire training scenarios and tasks to the areas that have been

²³ Fort Drum, New York Regulation 350-1, 41.

assessed as needing the most practice and which support the METL of the next higher headquarters.

An example would be a light infantry company METL task for “ Movement to Contact – Hasty Attack.” The platoon has a choice of eight battle drills found in FM 7-8, Infantry Rifle Platoon and Squad, that could be used and developed into a live-fire scenario that would support the company METL. According to FM 7-8, "Infantry battle drills describe how platoons and squads apply fire and maneuver to commonly encountered situations. They require leaders to make decisions rapidly and to issue brief oral orders quickly."²⁴ FM 25-101 defines a battle drill as a collective action rapidly executed without applying a deliberate decision making process. The ability of an infantry platoon to accomplish its mission depends on soldiers and leaders quickly executing key actions. The following battle drills are the true tip of the tactical spear that ultimately leads to the accomplishment of operational and strategic goals.

- Battle Drill #1: Platoon/squad attack
- Battle Drill #2: React to contact
- Battle Drill #3: Break contact
- Battle Drill #4: React to ambush
- Battle Drill #5: Knock out bunkers
- Battle Drill #6: Enter building/clear room
- Battle Drill #7: Enter/clear a trench
- Battle Drill #8: Conduct initial breach of a mined wire obstacle²⁵

Once ammunition has been allocated and MTPs established, subordinate commanders are called upon to allocate the most precious resource of all --

²⁴ Department of the Army, *FM 7-8 Infantry Rifle Platoon and Squad*, (Washington, D.C.: United States Government Printing Office, 1992) 4-1. (Hereafter cited as FM 7-8).

²⁵ FM 7-8, 4-1, 4-36.

training time. Experience, backed by research, indicates that this ever present resource is actually more precious than ammunition.²⁶

One flaw in DA pamphlet 350-38 is the absence of allocated ammunition for the use of night aiming devices. Fort Benning, GA, home of the Infantry School, is currently working on this significant issue, an action which is long overdue. The Infantry School is responsible for coordinating and aligning infantry training and doctrine with numerous off-the-shelf technologies that are constantly being purchased and distributed to the light divisions. Technological advances are occurring in target acquisition, night aiming/observation devices, communications, munitions, ground positioning systems, and laser target designation. Any technologies fielded to the light infantryman must be limited to those that enhance his ability to locate the enemy and deliver effective fire on him faster than ever before.²⁷

An April, 1998, address by the Infantry School Commandant specifically addresses the aforementioned problem. "We must continue to provide the Army with clear, current, concise warfighting doctrine to address a wide range of contingencies. We must keep our doctrine current, if we are to remain competitive in the face of ever-changing threats to our national interest. We do this by developing the tactics, techniques, and procedures (TTPs) to support new equipment before it is fielded; we assess long range requirements in our Infantry

²⁶ Interview with Major Malcolm Frost, G-3 Training, Ft. Bragg, N.C., 14 NOV 00. Major Frost corroborated that there is a delta in mandated training and what is actually occurring. (Hereafter cited as Frost)

²⁷ Jerry A. White, MG, "Tomorrow's Weapons – Today's Challenge" *Infantry Magazine* Volume 83 no 3 (1993): 1.

to meet them; and we draft, staff and publish doctrinal manuals and an array of specialized manuals."²⁸

Unfortunately, none of these specialized manuals cover qualification or familiarization on the numerous night aiming devices. As a result, light infantry units must design their own night qualification/familiarization tables. With no additional ammunition allocation for night firing, ammunition must be taken from existing allocations originally designated for maneuver live-fire training and marksmanship

The situation is troubling in two ways. First, the infantry unit is left to design a training program that is not standardized with other light infantry units. Secondly, emphasis appears to have shifted from task effectiveness to a reliance on technology as the key to the next first fight victory.

In 1993 the Infantry School recognized that a "state of parity exists between our family of small arms and those of our potential adversaries. Unless we are able to achieve a quantum leap forward, the infantryman of the future may well find himself outgunned. We cannot afford to let that happen."²⁹ The Infantry School chose to correct the projected imbalance in weapons and training by integrating innovative technology rather than by increasing allocations for ammunition and funding for training. Major General Jerry A. White, Chief of Infantry, voiced this swing in emphasis by stating, "Today we have in our grasp

²⁸ Carl F. Ernst, MG, "Mout – Progress and Challenges" *Infantry Magazine* vol. 88 no. 3 (1988): 1.

²⁹ Jerry A. White, MG, "Tomorrow's Weapons – Today's Challenge," *Infantry Magazine* vol. 83 no. 3 (1993): 1.

technological solutions that can meet the challenges of our changing world.”³⁰

MG White apparently ignored some of the lessons of history and the writings of du Picq, Mao, and Patton. He must not have read E.B. Sledge’s book “With the Old Breed” where Sledge points out : “The technology that developed the rifled barrel, the machine gun and high explosive shells has turned war into prolonged, subhuman slaughter. Man must be trained realistically if they are to survive it without breaking mentally or physically.”³¹ All of the mentioned authors and soldiers agree that mission success depends ultimately on hard, realistic training and the resolve of a well- trained soldier, squad and platoon, not on technology.

There are several problems with the STRAC manual that must be addressed. Though the manual states “The ammunition requirements are based on suggested strategies but do not automatically translate into authorizations,”³² light infantry units in the field are forced to treat the suggested strategies as authorizations. To request additional ammunition above STRAC allocations, divisions are required to submit requests to Forces Command for authorization of additional ammunition and allocation of funds.³³

The STRAC manual alignment with publicized doctrine is also problematic, as indicated by another quote from the manual: “Training strategies

³⁰ Jerry A. White, MG, “Dismounted Battlespace Battle Lab – Putting the Ideas of the Future into Action Today,” *Infantry Magazine* vol. 84 no. 2, (1994): 1.

³¹ E.B. Sledge, *With the Old Breed* (Oxford, NY: Oxford University Press, 1991), 41.

³² DA Pamphlet 350-38, 1.

³³ Personal interview with Major Jerry Cashion, 2d Brigade S-3, Fort Drum, NY., 2 Nov 00. Major Cashion spoke highly of the STRAC manual and its “perceived” authorizations. It worked well until MOUT becomes a METL task and ammunition expenditure to train on this task is exponentially higher, with different firing techniques and the need for repetition.

in this chapter are not necessarily based on exercises in current FMs and ARTEPs. Due to ammunition constraints, STRAC may not support the exercises in the FMs and ARTEPs.”³⁴ The ability to maintain the world’s premier light infantry demands more successful nesting of doctrine, training and resourcing.

Overall though, Department of the Army Pamphlet 350-38 charts a mostly reliable azimuth to follow in preparing the light infantry for its next first fight victory. DA Pam 350-38 is the keystone for light infantry training and, when applied along with FM 7-8, Light Infantry Platoon/Squad, FM 25-101, Training the Force and Training Circular, FM 7-9, Live Fire Training, our Army doctrine, and the TTPs for live-fires. Provides a balanced approach for training the light infantryman.

³⁴ DA Pamphlet 350-38, 51.

Chapter 3

Historical Evidence

“Their drills were like bloodless battles; their battles were like bloody drills.”³⁵ – Josephus

What place does skill and technology play in determining the outcome of modern battle? Is the combat power of the latest technology – such as advanced command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR) – significant enough to warrant acquisition at the cost of scaling back on METL training? If budget cuts must come, is it wiser to maintain older equipment and highly trained troops, or field the latest technology but suffer reduced skills and readiness for at least part of the force?³⁶ Are warfare and battle being treated as a physics problem in which superior weapons will assuredly carry the day?

Two historical examples of light infantry units in combat will be cited to validate the need for tough, realistic live-fire training as the primary “enabler” on the battlefield rather than technology.

In July 1944, at the Battle of La Haye du Puits, three U.S. divisions, the 90th and 79th Infantry Divisions and the 82nd Airborne Division, conducted a simultaneous assault on elements of the German LXXXIV Corps at Normandy,

³⁵ William F. Kernan, LG and Daniel P. Bolger, COL, “Train as We Fight,” *Infantry Magazine* vol 88 no. 1 (1998): 37.

³⁶ Stephen Biddle, Wade P. Hinkle, Michael P. Fishkeller, “Modern Warfare,” *Joint Force Quarterly* No. 22, (summer 1999) 18-38. (hereafter cited as Modern Warfare).

France. Each division was to conduct a deliberate attack on a prepared German main defensive line under virtually identical enemy, terrain and weather conditions. The 79th and 90th had similar Tables of Organization and Equipment. However, the 79th Division deployed ten percent fewer troops and twenty-four percent less artillery than the 90th Division. The 82nd Airborne Division was significantly smaller and lighter than the other two divisions, with about half the troop strength and far less firepower. The 82nd had half as much artillery as the 90th Division and only three-fourths as many machine guns and mortars.³⁷

Figure 3: Battle of La Haye du Puits		
	Ground seized (km²/hour)	Losses for ground taken (TBC*/km²/hour)
82nd Airborne Division	.28	564
79th Infantry Division	.22	841
90th Infantry Division	.17	1,035

*Total battle casualties per thousand troops engaged
Figure 3³⁸

By doing a battlefield calculation based on numbers of available soldiers and “enablers,” the 90th Division should have performed the best and the 82nd the worst. Yet, actual accomplishment on the battlefield was quite the opposite (see figure 4 above). The 82nd was an elite unit that trained intensively in the continental United States with consistently excellent exercise evaluations,

³⁷ Modern Warfare, 21.

³⁷ Ibid, 22.

something the U.S. Army's Brigade Combat Teams at JRTC and NTC have not done well in the last four to six years. The division had also spent another six months of unit-level training in England, and about one month in combat prior to the battle. On the other hand, the 90th and 79th Divisions were standard infantry units with lower levels of training and experience. Neither had overseas unit training and both had only been in combat for a few days. The 90th Division had consistently received poor exercise evaluations, so poor in fact, that the commanding general had been relieved.³⁹ Were the Army to relieve commanders today for poor exercise evaluations, there would be few commanders left at Brigade level and below!

So, on the basis of training and skill, one could predict that the 82nd would perform the best and the 90th the worst. The 82nd achieved the fastest rate of advance and the lowest casualties. The 90th Division had the inverse. The 82nd performed so well due to its effective, realistic training. A paratrooper said about training in the 505th Parachute Regiment, "There must be eight days in a week, because of all the training crammed into the week, hand to hand, marksmanship, bayonet assault, followed by endless platoon and company day/night attacks. But it served us well."⁴⁰ The 82nd fought thirty-three straight days of combat. In spite of suffering five thousand two hundred and forty-five casualties,⁴¹ the 82nd

³⁹ Ibid, 21.

⁴⁰ Special collections – 3rd floor Combined Arms Research Library at Fort Leavenworth, KS. Unknown paratroopers account of the history of the 505th Parachute Regiment, 82nd Airborne Division during World War II.

⁴¹ Larry Thompson, *The All Americans 82nd Airborne*, (New York, NY: Sterling Publishing Company, 1988) 161.

still fought harder and faster than the 79th and the 90th, who went into battle much better equipped but inexperienced and untrained.

The second example occurred on 3 October 1993, in Mogadishu, Somalia. The United States Army was engaged in the longest continuous battle since the Vietnam War. The battle involved a task force, called TF Ranger, which consisted of a company of Rangers, a contingent of assault and attack helicopters, and a detachment from Special Forces, Operational Detachment-Delta. During a Task Force Ranger mission, two helicopters were shot down and the task force was in danger of being overwhelmed by armed Somali clansmen. The Quick Reaction Force infantry battalion in Somalia was 2nd Battalion, 14th Infantry, commanded by LTC William C. David. David's 2-14 Battalion hastily planned and executed a nighttime mission into the heart of a guerrilla stronghold, linked-up with and evacuated Task Force Ranger, along with all U.S. dead and wounded. The battalion successfully achieved their mission without a single fratricide. During the battle eighteen U.S. soldiers were killed and seventy-seven were wounded. It was estimated that more than three hundred Somalis were killed that night and another seven hundred were wounded.⁴²

LTC David was a strong advocate for maneuver live-fire training. Following, are some of his salient comments about training and how it related to the battle. "We executed countless maneuver live-fire situational training exercises (STXs) at home station and in theater, from fire team through company level, both day and night. Having realistic maneuver live-fire STXs as the

⁴² Charles P. Ferry, Captain, "Mogadishu, October 1993: Personal Account of a Rifle Company XO," *Infantry Magazine* vol. 84 no. 5 (1994): 22. (Hereafter cited as Ferry).

centerpiece of collective training was the critical factor that enabled us to defeat the enemy in all of our tactical engagements in Somalia. In most respects, the fire and maneuver we executed in combat was done exactly as we routinely did them in training.”⁴³

LTC David, now Brigadier General David, Assistant Division Commander for Support, 101st Airborne Division (Air Assault), emphasizes the significance of realistic and, more importantly, of routine live-fire training. Routine training is what is missing, because there is a disparity between mandated live-fires and what the infantry units are actually able to train.⁴⁴ When an infantry battalion is tasked to perform a six-month Support and Stability Operation, it begins a divergent path from its wartime METL. The unit focus shifts to preparing to conduct a mandatory Mission Readiness Exercise (MRX) at the JRTC. The MRX is a miniature version of life as a peacekeeper/enforcer. The six-month train-up plus the six months deployed on the operation invariably cause mandated live-fire training to fall by the wayside.

David goes on to say: “If the battalion had not focused so heavily on live-fire, I do not believe our tactical execution would have been nearly as good in combat.”⁴⁵ An old lesson relearned once again -- units will perform in combat exactly the way they are trained to perform in peacetime.

⁴³ William C. David, LTC, “Preparing a Battalion for Combat: Maneuver Live-Fire Training,” *Infantry Magazine* vol.85, no. 5 (1995): 23 (hereafter cited as David).

⁴⁴ Frost

⁴⁵ David, 24.

David closes his commentary with some quantitative and qualitative facts. “What these men were asked to do that night was, in many ways, merely a variation of what they had done so often in training. Furthermore, the task force did not suffer a single fratricide or friendly fire injury. The linkup with, and extraction of, the Rangers was a success. Extensive live-fire exercises in training were the key to that success.”⁴⁶ In every interview after the experience in Somalia, the soldiers and leaders of the task force confirmed that what best prepared them for combat was the live-fire training.

Two of LTC David’s officers during this battle have also published their personal accounts of the fighting. Both of them praise the amount of live-fire training conducted and how it was the true combat enabler. 2LT Mark A.B. Hollis, a rifle platoon leader in 2d platoon, Company A, 2-14, had just completed Ranger School and had taken command of the platoon only five days before the deployment. He stated, “I really had to learn on the go.”⁴⁷ He goes on to say that live-fire training was the combat multiplier that gave confidence to each man in his platoon. His soldiers were used to their buddies firing over, and beside them, while they engaged targets of their own. “Throughout the entire time in country my battalion conducted live-fire training. I never fired one round of blank ammunition and never incurred any training accidents due to live-fire training.”⁴⁸

ILT Charles P. Ferry, an Executive Officer in Company C, 2-14, commented that “The single best preparation for combat is tough, realistic live-

⁴⁶ David, 26.

⁴⁷ Mark B. Hollis, Captain, “Platoon Under Fire,” *Infantry Magazine* vol. 88, no. 1 (1998): 33. (Hereafter cited as Hollis)

⁴⁸ Hollis, 35.

fire exercises. LFXs give soldiers and leaders the best look at what combat will sound, and feel, like. The extensive LFX training conducted by our unit saved lives and enabled the company to perform well under fire.”⁴⁹

Ardant du Picq would have been proud of the 82nd and Task Force 2-14. He had already written about the kind of great units they were and their special attributes. “Unity and confidence cannot be improvised. They alone can create that mutual trust, that feeling of force, which gives courage and daring. Courage, that is the temporary domination of will over instinct, brings about victory.”⁵⁰

⁴⁹ Ferry, 24

⁵⁰ du Picq, 97.

Chapter 4

Intangible Byproducts

***"Espirit de corps is secured in war. But war becomes shorter and shorter and more and more violent. Consequently secure esprit de corps in advance."*⁵¹ Ardant du Picq**

Espirit de corps, morale, cohesion and training all share a symbiotic⁵² relationship for the infantryman. A unit must have high levels of all four to be ready for a first fight victory. Degradation in one area affects the others.

Espirit de corps is defined as unit pride, the shared spirit of enthusiasm, devotion and collective honor among units. A shared sense of unit accomplishment strengthens unit esprit, particularly when the unit has had to come together to overcome adversity.⁵³ Esprit de corps is not something that can be arbitrarily given to a unit, i.e. the "Black Beret."⁵⁴ It has to be earned in a crucible, a scenario of what the next first fight will look like. Only in realistic live-fire training can the genesis of a group of individuals begin to mature into infantry fire teams, squads and platoons. The sights, sounds, and smells of the battlefield should never be "felt" for the first time in combat, but rather experienced repeatedly in peacetime. LTC Bill David thought realistic live-fire training provided confidence and esprit to his unit. "While soldiers and leaders

⁵¹ du Picq, 53.

⁵² Merriam Webster's Dictionary, www.m-w.com, definition stated as living together in more or less intimate association or close union of two dissimilar organisms or the intimate living together of two dissimilar organisms in a mutually beneficial relationship, a cooperative relationship.

⁵³ Ike Skelton, Congressman, "Military Retention Intangibles: Esprit, Morale and Cohesion," *Military Review*, vol. LXXXIX, no. 4 (1999), 2. (Hereafter cited as Skelton).

⁵⁴ In October 2000, General Shinseki, Army Chief of Staff announced the Army would move to a black beret as standard head gear. The black beret has traditionally been worn only by those soldiers assigned to the 75th Ranger Regiment or the Ranger Training Brigade, both

always maintained a healthy respect for the enemy, they had no doubt as to which was the superior force and which would win in any firefight.”⁵⁵ That is the essence of esprit. General George Patton, a legend of World War II, had a knack for producing esprit and bred it into his units. His three axioms are the embodiment of esprit de corps:

1. I complacently demanded the impossible, that I had dared extreme occasion and that I not taken council of my fears.
2. To be a good soldier, a man must have discipline, self-respect, and pride in his unit and his country, a high sense of duty and obligation to his comrades and to his superiors, and self-confidence born of demonstrated ability.
3. Self confidence, the greatest military virtue, results from the demonstrated ability derived from the acquisition of all the preceding qualities and from exercise in the use of weapons.⁵⁶

Morale is the human dimension’s most important intangible element.⁵⁷ It is a measure of how soldiers feel about themselves, their unit and their leaders. High morale comes from good leadership, shared hardships, mutual respect and trust. Can high morale be secured during a six-month train-up for a SASO mission? Our senior Army and civilian leadership believe so.⁵⁸ Morale is a mental and emotional condition in terms of enthusiasm, confidence and loyalty and will always be a subjective end state. It is most volatile, therefore, turning on things both small and highly significant. Ardant du Picq was again a futurist when he talked of morale versus technology.

headquartered at Fort Benning, GA. These units are known for their esprit, professionalism and an elitist aura.

⁵⁵ David, 27.

⁵⁶ George S. Patton, Jr., General, *War As I Knew It*,” (Boston, MA: Houghton Mifflin Company, 1947) 335.

⁵⁷ Department of the Army, *FM 22-100 Headquarters* (Washington, D.C.: United States Government Printing Office, 1999) 3-3. (Hereafter cited as FM 22-100).

⁵⁸ Skelton, 2.

“Note the army organizations and tactical formations on paper are always determined from the mechanical point of view neglecting the essential coefficient of morale. They are almost always wrong. When confidence is placed in superiority of material means, valuable as they are against an enemy at a distance, it may be betrayed by the actions of the enemy. If he closes with you in spite of your superiority in means of destruction, the morale of the enemy mounts with the loss of your confidence.”⁵⁹

This is critically important in the training of today’s infantryman. The Army leads the young soldier, and his small unit leaders, to believe in a plethora of enablers and technology that surely no enemy can stand up to on the next battlefield. Yet, the same units and their enablers get soundly defeated at the Army’s Combat Training Centers(CTCs).⁶⁰ How then are the soldiers to see the quantifiable aspects of their enablers? Morale is easily shaken. If the enemy is able to close with the infantryman in spite of a significant technological advantage, the first fight victory must be rehearsed, practiced and secured in training, using the same technology. This can only be accomplished by realistic maneuver live-fire training, where the infantryman sees his squad and platoon function as for war, and learns from their mistakes.

Morale is the essential human element that holds the light infantry together and keeps it going in the face of the adversity and death encountered on the battlefield. “Morale makes you have a comradeship, a rapport that you’ll

⁵⁹ du Picq, 124.

⁶⁰ John D. Rosenburger, COL, “Reversing the Downward Spiral of Combat Readiness: Change the Way We Measure It,” *Military Review* vol. LXXXIX, no. 6, (1999): 54. (Hereafter cited as Rosenburger).

never have again. . . . There's no competitiveness, no money values. You trust the man on your left and on your right with your life.”⁶¹

Cohesion is the primary means of building combat power. Cohesion directly influences the ability of a unit to persevere and remain determined in the face of adversity. When morale and esprit de corps combine with unit cohesion, the payoff is unit pride and the strength to overcome psychological and physiological fear.⁶² Only then can a soldier trust his fire team buddy to place effective fire on the enemy while he moves, knowing the machine guns in a support-by-fire position will suppress the objective until the very last second before he closes to zero meters, and that the guns won't expended all of their ammunition too early. This type of trust and cohesion happens when training is executed properly. All the intangibles then can become quantifiable. Battle Drills start to become second nature as trust grows among platoon members that their backside will be covered – and that their companies will **NEVER** let them down. This is the essence of training for the light infantryman.

In peacetime, the main components of esprit de corps, morale and cohesion are embedded in the infantryman's individual skills, battle drills and his overall readiness. All of these stem from hard, continuous and challenging live-fire exercises trained to standard.

⁶¹ FM 22-100, 3-3. A quote from Captain Audie Murphy, Medal of Honor recipient and most decorated American soldier of World War II.

⁶² Skelton, 3.

Chapter 5

Significance and Constraints

“In no other profession are the penalties for employing untrained personnel so appalling or irrevocable as in the Army.”⁶³ – General Douglas MacArthur

Training prepares soldiers, units and leaders to fight and win in combat – the Army’s basic mission. Training brings the infantryman’s battle drills to life. It also allows the outgrowth and hybridization of tactics, technologies and procedures to be classified into platoon standard operating procedures (SOPs). It is training that enables the infantryman to bring to bear the awesome potential of our modern weapons and technology. It is the training that teaches and builds the kinds of sergeants and officers who will lead the Infantry, if not the Army, into the next decade. Realistic maneuver live-fire training is what keeps smart, quality, motivated individuals in the Army, soldiers who know how to build teams.

When infantrymen participate in and experience a realistic live-fire exercise, something exciting happens. The tremendous and awesome firepower of a light infantry platoon in the attack, supported by indirect fires and attack aviation, convinces soldiers they are part of a destructive machine. When live-fires are stepped up to the Company Combined Arms Live-Fires Exercise (CALFEX), the effect is even more overpowering. “The air reverberates, the ground shakes; every sight, sound and smell tells the soldier it is the enemy who is in trouble.”⁶⁴ These experiences make soldiers believe in themselves, their

⁶³ Carl Vuono, GEN, “Training in the Army of the 1990s,” *Military Review*, vol. 77, no. 1, 79. (Hereafter cited as Vuono).

⁶⁴ David, 25.

unit, the Army and the nation. That confidence improves the quality of not only the Infantry branch, but also of the total Army, and sets the conditions for a first fight victory.

The soldiers depend upon their leaders to train them in peacetime to fight, win and survive in battle. General “Light Horse” Harry Lee, of Revolutionary War fame, clearly captures the thought when he cautioned that “a government is the murderer of its own citizens when it sends them to the field untrained and untaught.”⁶⁵ No leader in America’s Army should ever be guilty of that most inexcusable lapse of professional responsibility, yet we are.

The reasons for guilt include: personnel tempo, operation tempo, risk mitigation, and constrained resources (especially time). Taken individually, the reasons would have a slight to moderate effect on light infantry readiness, nothing that could not be overcome by rearranging some priorities. But the synergistic effect of deficiencies in all four areas could, in the eyes of General Lee, leave the Army guilty of the charge of manslaughter. Though not premeditated, the current situation, bordering on gross negligence was reached over the course of time, and has the potential for disaster.

Excessive personnel tempo breeds two enemies: personnel turnover and skill decay. It is a challenge Army forces must endure daily that saps the combat potential out of the force.

⁶⁵ Vuono, 82.

Currently requirements for infantry soldiers outweigh the supply. Every single year, line units average between thirty and forty-percent turnover.⁶⁶ Assuming the unit is at one hundred percent strength, which is generally not true, a Brigade Combat Team of two thousand five hundred troops would have eight hundred to one thousand new leaders and soldiers to assimilate and train every year to accomplish mission essential tasks. Nine hundred old soldiers depart the unit along with their knowledge, skills and ability. If the unit was not within the band of excellence before this turbulence, conditions exist for further degradation of unit effectiveness. Every commander and leader, officer or non-commissioned officer, must continually train new soldiers and leaders to rebuild the team, a team that was already needing to be renovated. When this happens minimum effectiveness is all that can be hoped for.

Skill degradation and atrophy set in over time. Warfighting is an extremely complex profession, especially today. For instance, a light infantry platoon leader conducting Squad/Platoon Battle Drill 2, "Take Action on Contact," has over eighty task steps and performance measures that he could be evaluated (see Appendix I). Completing this one Battle Drill requires tremendous mental acuity and situational awareness by the young leader and his soldiers.

To accomplish Battle Drill 2, the whole squad or platoon must function as one. Leaders must figure out the enemy location and intention, and exercise mental agility to determine whether existing plans will work or will have to be modified. Orders and fire control measures have to be clearly communicated and understood by all concerned. Battle drills must be executed precisely. All of

this takes place amid incoming fire, deafening noise, casualties, confusion and fear. Beating an aggressive, organized enemy who is trying to kill you is no simple task, especially the enemy described by Robert Kaplan.

“The enemy is a reprimatized man, a person who finds liberation in violence. When worrying about mines, ambushes, artillery and air attacks, he frees his mind from past mundane miseries. This reprimatized man finds war and a barracks existence as a step up on the evolutionary ladder, rather than a step down.”⁶⁷

This man is out there, and he and his friends will be hard to kill.

The more complex the task, the more quickly is the skill to accomplish it lost. It follows then that the more complex the task, the greater frequency of training is required to maintain proficiency. With a consistently high personnel tempo and accompanying unit skill decay, the only means of sustaining high levels of combat readiness is to increase the frequency of tough, realistic field training. For the infantryman, that is maneuver live-fire training.

Maneuver live-fire training breeds another significant enabler that will serve the infantryman throughout his career. Napoleon said, “Victory in war does not depend entirely upon numbers or mere courage; only skill and discipline will ensure it.”⁶⁸ The battlefield environment forms the foundation for many decisions which then change the course and terms of the battle. Napoleon was speaking of tactical intuition which stimulates battlefield awareness. It is gained through education and experience and results in “quick access to a whole bank of experiences and lessons that don’t have to be gone through individually or in

⁶⁷ Robert D. Kaplan, *The Coming Anarchy* (New York, NY: Random House, 2000) 54.

⁶⁸ Reinwald, 83.

detail, but as a result of a lot of reflection and conviction.”⁶⁹ In simple terms, what is needed by the infantryman, whether a private or a general, is a data base for pattern recognition. Infantrymen will have the same amount of battlefield vision as they have warfighting experience.⁷⁰ The vital nature of tactical intuition demands that it be cultivated and improved throughout the force. Excessive personnel turbulence is causing too many infantry soldiers to miss the chance to effectively develop their tactical intuition. The impact of this missing knowledge will not be realized until the next “first fight!”

Operation tempo is creating too many competing demands for unit time and attention: deployments, joint training exercises, support and stability operations, humanitarian/disaster relief, forest fires, and numerous CTC rotations. Numerous other mandated ancillary training, and inspection programs attrit unit training time to the point of being almost unmanageable. For example, in light of all the sexual harassment problems between drill sergeants and basic trainees, the Army instituted a Consideration of Others (CO2) program mandated to occur bi-annually. It is ironic that weapons qualification and CO2 training are trained at the same frequency. Group discussion on the latest politically correct topics is not a very effective way to inculcate the warrior ethos. The cumulative effect of these distractions from field training, year after year, seriously affects combat effectiveness and could lead to lethal results. The *European Stars and Stripes* ran an article entitled, “Weapon qualification not on target – soldiers say

⁶⁹ Reinwald, 82

⁷⁰ Reinwald, 80.

gun training lacks as Army spread too thin.”⁷¹ The article, in response to a young American soldier who mistakenly fired his weapon and killed an Albanian boy, clearly illuminates the adverse impact of operation tempo, personnel tempo and time constraints, on an eroding training base.

On July 10, PFC Nicholas Young pulled the trigger on his M-249 Squad Automatic Weapon, allegedly to see if the weapon was on “safe.” Two of the three 5.56mm rounds Young accidentally fired went through an unarmored Humvee, ricocheted off the ground and killed an Albanian boy. In September, testimony during Young’s Article 32 hearing for negligence and dereliction of duty revealed that Young had failed to qualify on the SAW in Germany, two months to the day, before the killing and just before deploying to Bosnia.⁷²

The conditions leading to this incident began years before, maybe even before PFC Young joined the Army, when training standards were compromised for the sake of operation tempo, personnel tempo and time constraints. As a result, it is safe to say there are PFC Youngs in every light infantry squad today.

General George C. Marshall, Army Chief of Staff during World War II, wrote: “I insist we must get down to the essentials, make clear the real difficulties, and expunge the bunk, complications and ponderosities; we must concentrate on registering in men’s minds certain vital considerations, instead of a mass of less important details.”⁷³ Marshall penned these words in 1927, while assigned as the assistant commander of the U.S. Infantry School at Fort Benning, Georgia. If he were there today his call for a return to basics would be

⁷¹ Boyd, Terry and Emert Rick, “Weapon Qualification no on Target: Soldiers say gun training lacks as Army spread too thin,” *European Stars and Stripes*, 8. (Hereafter cited to as Boyd).

⁷² Boyd, 8.

⁷³ Spiller, Roger J., *Combined Arms in Battle Since 1939*, (Fort Leavenworth, KS: U.S. Army Command and General Staff College Press, 1992) x. (Hereafter cited as Spiller).

even more timely. “We must return to technique and method so simple and brief that the citizen soldier of good common sense can readily grasp the idea.”⁷⁴

The third reason for the Army’s guilt is the erosion of quality training for the sake of risk mitigation. All the light infantry divisions have live-fire training notes signed by their commanding general. Each note begins with a purpose statement followed by a generalization of what live-fire exercises are meant to achieve. The information within the notes is remarkably standard, which is a step in the right direction. As an example, Training Note #1 from the 101st Airborne Division (Air Assault) will be cited (see Appendix II).

The standard training sequence for a LFX is a repeated drill using a crawl, walk and run approach found in Training Circular (TC) 7-9, Infantry Live-Fire Training. The unit must first take all key leaders from the maneuvering unit and walk the range in conjunction with the range officer and the range safeties. The leaders then go back and conduct a rehearsal with the unit, after having seen the actual ground and the enemy/targets they are to engage. All armies in the world should be so lucky as to let the enemy allow them such a magnificent leaders recon. Here, then, is the first problem!

The unit must next conduct a blank fire iteration on the range (or objective) under identical conditions as will be experienced during the live-fire, including any planned ground tactical maneuvers, all personnel who will be participating, and visibility. Units will always conduct blank fire iterations prior to both day and night live-fires. All preparations are done under the pretense to “ensure soldier

⁷⁴ Spiller, x.

familiarity with the scenario and sequence.”⁷⁵ Live-fires are done under the exact same conditions as blank fires. If the unit has a change in leadership position, task organization, or the introduction of a new soldier between blank and live iterations, the unit must conduct another validating blank fire. In the spirit of realistic training, it is doubtful the enemy will allow blank fire preparations in combat as units lose and receive personnel.

All four divisions use this approach in the name of realistic, safe, risk-mitigated live-fires. It is no way to train infantrymen for the next “first fight” victory. It is dogmatic and dulls soldier mental acuity. Leaders and soldiers have the decisions already made for them. Initiative, and the data base for tactical intuition, are stunted in their embryonic stage.

Every light infantry division commander should have this quote on his desk:

“War has no traffic rules, for the infinitely varied circumstances and conditions of combat never produce exactly the same situation twice. Mission, terrain, weather, dispositions, armament, morale, supply and comparative strength are variables whose mutations always combine to form a tactical pattern. Thus, in battle, each situation is unique and must be solved on its own merits.”⁷⁶

Training in this manner does not build innovative, bold, risk-taking leaders and soldiers. JRTC evaluation results will provide the conclusive evidence.

During a JRTC rotation, the Brigade Combat Team will conduct maneuver live-fires with approximately ten to eleven infantry platoons out of its total of eighteen.⁷⁷ The live-fires conducted are executed as they should be, leaders and

⁷⁵ Eagle Training Note #1, Live Fire Exercises (LFXs), 4.

⁷⁶ Spiller, xiii.

⁷⁷ John Dejarnette, Major, Oral interview on 6 November 00. (former observer/controller JRTC).

soldiers only see the objective from photographs, and all rehearsals and blank fires are conducted off-site. Significant home station training inadequacies and failures are consistently captured. Listed below are historical mistakes noted over a four-year period at JRTC during live-fires.

1. Establishment of overwatch and support-by-fire(SBF) positions: Leaders cannot correctly emplace effective SBF positions. This is critical because it normally contains the majority of a units critical firepower assets. During home station LFXs these critical sites are already picked out, leaders don't have to think and develop situational awareness.
2. At platoon level, leaders are having extreme difficulty in assessing the situation. Leaders constantly make decisions with little or no information. At home station LFXs, all decisions are already made.
3. Platoon leaders are hesitant in choosing from which side to flank with the assault element. This is derived from never having to analyze, or think through, a flanking movement in home station LFXs. During the home station LFX, it has already been decided on where soldiers will be maneuvered
4. Inability to control rates of fire and premature lifting of fires. Platoons are needlessly expending ammunition early in the LFX and this causes the unit to not have enough ammunition to complete the mission and seize the final objective. Also, while platoons are maneuvering towards the objective, machine gunners and weapon squad leaders are lifting suppressive fires too early. This is sound in a safety sense, but, during war, the rounds need to impact five meters in front of the maneuver element as it assaults the objective. If fires are lifted too early, the enemy will reorient his fire at the most critical moment, towards the maneuver element.
5. Rehearsals: one area regarding the link between planning, rehearsals and execution that rotational units fail to address is that rehearsal locations do not mirror the terrain on which the unit will be conducting their mission. The leader of any rehearsal needs to focus on the drill aspects that the rehearsal site supports rather than the time, distance, line of site, etc., aspects that get ingrained in the minds of soldiers over time upon operating on a piece of terrain. In some instances, it was necessary to physically take the leaders onto the actual objective in order to correct the misinterpretation between the rehearsal site and the actual objective. The foundation for this problem is that at the home station we habitually conduct leaders reconnaissance, dry rehearsals, and numerous blank fires on the same terrain that we live on. This is a good method for ensuring fundamentals but we, as an Army, must recognize that an additional step, that of doing live fires on

unfamiliar terrain with an unknown enemy situation, will benefit the “go to war” mentality of unit leaders and their soldiers.⁷⁸

Are we teaching the infantryman to fight, win and survive with our current risk-mitigation procedures, or are we teaching him how to die?

⁷⁸ Comments collected from Executive Live-Fire Summaries (1996-2000), posted on a restricted web site at the Center for Army Lessons Learned, Fort Leavenworth, KS. 4 November 00.

Chapter 6

Conclusion and Recommendations

“A wise organization that the personnel of combat groups changes as little as possible so that comrades in peacetime maneuvers shall be comrades in war. From living together, an always obeying the same chiefs, from commanding the same men, from sharing fatigue and rest, from cooperation among men who quickly understand each other in the execution of war-like movements, may be bred brotherhood, professional knowledge, sentiment, and, above all, unity. Now confidence appears. It is intimate confidence, firm and conscious, which does not forget itself in the heat of battle and which alone makes true combatants.”⁷⁹ - Ardant du Picq

Light infantry units must be able to integrate all organic and supporting fires with maneuver to kill the enemy at the point of attack and to accomplish the mission while sustaining the fewest possible friendly casualties. This is the collective core performance area that is the essence of light infantry operations.

To train properly for war, the infantryman must have sufficient quality time and the unit being trained must be allowed to develop into a cohesive fighting unit. Several factors since the early 1990's have combined to thwart these needs and haven taken a toll on the readiness of the light infantry divisions. Blistering operations tempo, persistent personnel tempo, and a critical shortage of money, time and personnel, have all massed to degrade combat readiness.

It is no surprise to anyone serving in the field or observing combined arms brigades perform at the maneuver CTCs that combat readiness, if measured as

⁷⁹ du Picq, 96.

the ability of a unit to perform its METL, continues to decline. “Entry-level proficiency of our units at the ‘dirt’ CTCs, where the evidence is unmistakable, is substantially lower than it has been in the past.”⁸⁰

By executing LFXs in accordance with the light divisions training notes, soldiers literally do not have to think. During the live-fire the soldiers do exactly as they did during the blank fire, the enemy and the terrain remain the same. Tactical intuition is never allowed to develop. Soldiers are promoted and charged with training and leading infantrymen without even understanding the fundamentals.

Commensurate with the erosion of training performance, is the accompanying degradation of esprit de corps, morale and cohesion. The degradation can be quantified by the excessive departure from the Army of mid-grade officers and non-commissioned officers.

The Army’s current doctrine for the resourcing of ammunition and frequency of live-fire training is sufficient to provide the light infantryman with weapon in hand the ability to maneuver in LFXs and close to zero meters and beyond. DA Pam 350-38 mandates that the infantryman conduct eleven maneuver live-fires during a fiscal year. Squads and platoons are mandated to conduct a maneuver live-fire exercise once per quarter.

The training is simply not being conducted with the mandated frequency and, when the training is conducted, it more resembles a choreographed stage play than a violent combined arms attack.

⁸⁰ Rosenburger, 56.

The light infantryman offers “the smallest target and is endowed with the single best computer yet devised – the human brain.”⁸¹ Yet its software is becoming obsolete due to neglect, and its hard drive is too full of useless megabytes leaving no room to store anything else.

How ironic that in the shadows of the greatest technical explosion and revolution in military affairs, the most effective means of altering the status quo is a man armed with nothing more than a rifle in his hand and an idea in his head; an idea of what right needs to look like in a situation he has never been in before. Yet, with proper training, his senses can read the situation and his mind can reach into a mental data bank and produce a tactical solution.

Realistic maneuver live-fire training takes time to execute and, though infinite to most professions, time is finite to the infantryman. He has a short window to learn his profession before being promoted to positions of increased responsibility. The results of the executive summaries from JRTC validate that many leaders and units are just not properly trained to win the next “first fight.”

The U.S. Army’s light infantry maneuver live-fire training is not sufficient for the next “first fight” victory. Action to remedy this situation is needed from the senior leadership at the Infantry School and Headquarters, TRADOC. The units simply need time to train to uncompromising standards in a realistic environment. Real solutions to training deficiencies cannot be bought no matter how sophisticated the technology. Doctrine already provides the solution, and it works when correctly applied.

⁸¹ English, xix.

The division training calendars are entirely too full of training events due to the philosophy that the busier the unit, the more training is taking place. Any validity to that philosophy comes at the cost of quality and of the combat effectiveness of a generation of young infantrymen.

Appendix I: Battle Drill Example

TASK: Take Action on Contact (Infantry Platoon/Squad) (07-3-1001)

([FM 17-98](#)) ([FM 23-10](#)) ([FM 34-2-1](#)) ([FM 7-10](#)) ([FM 7-20](#)) ([FM 7-7J](#)) ([FM 7-8](#)) ([FM 7-91](#)) ([FM 7-92](#)) ([FM 7-98](#)) ([FM 71-1](#)) ([FM 71-2](#))

ITERATION 1 2 3 4 5 M (circle)

TRAINING STATUS T P U (circle)

CONDITION: The platoon is conducting tactical operations as part of a larger unit. It makes contact through one of the eight forms of contact (receipt of direct fire, visual contact, receipt of indirect fires, contact with obstacles, contact from threat/unknown air elements, electronic warfare contact, contact in nuclear, biological, chemical (NBC) situations, or nonhostile contact). The unit has guidance provided by the rules of engagement (ROE) and from mission instructions, such as the peace mandate terms of reference, Status of Forces Agreement (SOFA), and rules of interaction (ROI). Civilians, government agencies, nongovernmental organizations, private voluntary organizations, and local and international media may be in the area.

Some iterations of this task should be performed in MOPP4.

TASK STANDARD: The platoon reacts to the contact, deploys as required, and reports the contact to higher headquarters. It develops the situation and recommends a course of action (COA) based on the commander's intent and/or current tactical situation. The platoon executes the chosen/directed COA and reports to higher headquarters. The platoon remains combat effective and is prepared for follow-on missions. The unit complies with the ROE/ROI, mission instruction, higher headquarters and other special orders. No friendly unit suffers casualties or equipment damage as a result of fratricide. Collateral damage is minimized.

TASK STEPS and PERFORMANCE MEASURES	GO	NO GO
1. Platoon deploys and reports. a. Conducts command and control of operations digitally: (1) Maintain digital situational awareness. (2) Submit digital reports and overlays. (3) Direct movement, positioning, and fires digitally. b. Ensures that rules of engagement (ROE) and rules of interaction (ROI) are disseminated to subordinate personnel. c. Reacts when contact entails direct fire contact . (1) Element in contact returns fire immediately to destroy or suppress the threat and sends contact report. OR (2) Deploys to covered and concealed positions, if available. (3) Utilizes indirect fire assets, as necessary.		

<p>(4) Activates on-board self protection measures as appropriate.</p> <p>(5) Conducts battle drills, as necessary.</p> <p>(6) Maintains visual contact with the threat while continuing to develop the situation through reconnaissance or surveillance.</p> <p>(7) Maintains cross-talk with all platoon elements.</p> <p>(8) Platoon leader/platoon sergeant (PSG) sends SPOTREP to higher headquarters.</p> <p>d. Reacts when contact is visual.</p> <p>(1) If there is immediate danger from the threat, the element establishing visual contact initiates fires to destroy or suppress the threat, deploys to covered and concealed positions using appropriate battle drill(s), and reports to platoon leader. OR</p> <p>(2) If there is no immediate danger from the threat or the threat is out of direct fire range, the element deploys, maintains visual contact, and reports to platoon leader.</p> <p>(3) Remaining platoon elements deploy to supporting covered and concealed positions, as directed by platoon leader.</p> <p>(4) Platoon leader/PSG sends spot report (SPOTREP) to higher headquarters.</p> <p>e. Reacts when contact is indirect fires (observed or receiving).</p> <p>(1) Elements observing indirect fire use evasive actions to avoid impact area.</p> <p>(2) Elements under fire continue to move quickly to clear impact area.</p> <p>NOTE: Crews immediately close hatches, as necessary.</p> <p>(3) Platoon reacts to chemical/biological attack, if necessary, IAW OPORD/FRAGO and type of incoming rounds.</p> <p>NOTE: Platoon elements immediately conduct NBC reconnaissance.</p> <p>(4) Platoon leader/PSG sends SPOTREP to higher headquarters.</p> <p>(5) If NBC agents were detected, platoon leader/PSG sends follow-up NBC 1 report to higher headquarters.</p> <p>f. Reacts when contact is with an obstacle.</p> <p>(1) Element establishing visual contact with the obstacle deploys to covered and concealed positions and reports to platoon leader.</p> <p>(2) Remaining platoon elements deploy to supporting covered and concealed positions, as directed by platoon leader.</p> <p>NOTE: Crews immediately close hatches, as necessary.</p> <p>(3) Platoon leader calls for immediate smoke on the far side of the obstacle to conceal deployment of the platoon, if required.</p> <p>(4) Platoon leader/PSG sends SPOTREP to higher headquarters.</p> <p>g. Reacts when contact is a threat/unknown air contact.</p> <p>(1) If there is immediate danger from the threat, the element establishing visual contact initiates fires to destroy or suppress the threat, deploys to covered and concealed positions using appropriate battle drill(s), and reports to platoon leader. OR</p> <p>(2) If there is no immediate danger from the threat or the threat is out of direct fire range, the element establishing visual contact, deploys, maintains</p>		
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<p>visual contact, and reports to platoon leader.</p> <p>(3) Remaining platoon elements deploy to supporting covered and concealed positions, as directed by platoon leader.</p> <p>(4) Platoon leader/PSG sends SPOTREP to higher headquarters.</p> <p>h. Reacts when contact is electronic warfare contact (i.e., sensor or radio detection, interception, or direction finding).</p> <p>(1) Element in contact sends SPOTREP to platoon leader.</p> <p>(2) If there is immediate danger from the threat, the element establishing electronic warfare contact deploys to covered and concealed positions using appropriate battle drill(s), and reports to platoon leader. OR</p> <p>(3) If there is no immediate danger from the threat or the threat is out of direct fire range, the element establishing electronic warfare contact maintains contact, and continues to report to the platoon leader.</p> <p>(4) Remaining platoon elements deploy to supporting covered and concealed positions, as directed by platoon leader.</p> <p>(5) Platoon leader/PSG sends SPOTREP to higher headquarters.</p> <p>i. Reacts when contact is NBC contact (i.e., physical or by alert with chemical agent alarms).</p> <p>(1) If chemical or biological contact, element in contact masks, sounds alarm, and sends SPOTREP to platoon leader.</p> <p>(2) Platoon takes protective measures against NBC attack/contamination.</p> <p>(3) Platoon elements conduct NBC reconnaissance to determine type and extent of contamination.</p> <p>(4) Platoon leader/PSG sends SPOTREP to higher headquarters.</p> <p>(5) Platoon leader/PSG sends follow-up NBC 1 report to higher headquarters.</p> <p>j. Reacts when contact is nonhostile contact (physical or visual).</p> <p>(1) Element in contact continues to observe.</p> <p>(2) Remaining platoon elements deploy to supporting covered and concealed positions, as directed by platoon leader.</p> <p>(3) Platoon leader/PSG sends SPOTREP to higher headquarters.</p> <p>*2. Platoon leader evaluates the situation.</p> <p>a. Element in contact evaluates the situation quickly.</p> <p>(1) Conduct reconnaissance of the area using a combination of mounted elements, dismounts, and reconnaissance by fire to fully develop the situation.</p> <p>(2) Determine enemy size, composition, activity, orientation, and location of weapon systems.</p> <p>(3) Search for antitank ditches, minefields, wire, or other obstacles that could define a fire sack.</p> <p>(4) Search for the flanks of the enemy and any elements that could mutually support enemy position(s).</p> <p>(5) Based on a fully developed situation, send updated SPOTREP (with possible COAs) to the platoon leader/PSG.</p> <p>b. Platoon leader/PSG analyzes SPOTREPs and other tactical information as required to make an assessment of the situation.</p>		
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<p>c. Platoon leader/PSG directs the actions of elements not in contact in a manner that supports the elements in contact. AND/OR</p> <p>d. Platoon leader and/or PSG directs elements not in contact to continue the mission in accordance with (IAW) the operation order/fragmentary order (OPORD/FRAGO).</p> <p>*3. Platoon leader develops the situation as required using a combination of techniques.</p> <p>a. Chooses fire and maneuver, indirect fire, reconnaissance by fire, or surveillance.</p> <p>b. Ensures platoon's actions allow for survivability and mission accomplishment.</p> <p>c. Sends updated SPOTREP to higher headquarters.</p> <p>*4. Platoon leader selects an appropriate course of action based on the commander's intent, METT-TC, his analysis of the situation, and input from elements in contact.</p> <p>a. Directs the platoon to execute the original course of action (as previously addressed in the OPORD) if it is consistent with the commander's intent/concept and is within the platoon's capability. OR</p> <p>b. Based on the situation, issues FRAGO to refine the plan, ensuring it supports the commander's intent. OR</p> <p>c. Directs the platoon to execute tactical movement (employing bounding overwatch and support by fire within the platoon) and reconnaissance by fire to further develop the situation. OR</p> <p>d. Directs the platoon to establish a hasty defense/support by fire (SBF) position and takes further guidance from commander. OR</p> <p>e. Chooses an alternative course of action (COA) based on evaluation and development of the situation.</p> <p>*5. Platoon leader recommends alternative COA (if situation dictates a change to the original plan).</p> <p>a. Sends recommendation to the commander.</p> <p>b. Receives orders to execute the COA selected by the commander.</p> <p>c. Uses cross-talk with other platoons as necessary to obtain support (platoon leader/PSG).</p> <p>*6. Platoon leader directs the platoon to execute the course of action based on the situation or commander's order.</p> <p>a. Directs the platoon to destroy an inferior force. OR</p> <p>b. Directs platoon to conduct overwatch/support by fire. OR</p> <p>c. Directs platoon to conduct an attack by fire. OR</p> <p>d. Directs platoon to assault an enemy position. OR</p> <p>e. Directs platoon to break contact and conduct bypass operations. OR</p> <p>f. Directs platoon to conduct reconnaissance by fire. OR</p> <p>g. Directs platoon to conduct defense of a battle position. OR</p> <p>h. Directs platoon to breach an obstacle.</p> <p>*7. Platoon leader directs operation to completion based on the situation and OPORD, FRAGO, and commander's intent.</p> <p>a. Continues to execute the selected or refined COA until platoon</p>		
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accomplishes the original mission, receives a FRAGO from the commander, or is ordered to execute consolidation and reorganization on the objective. b. Alters COA during execution as the situation dictates. *8. Platoon leader/PSG keeps the commander informed throughout the operation. a. Sends updated SITREPs and/or SPOTREPs as necessary. b. Reports completion of the operation.		
NOTE * Indicates a leader task. NOTE + Indicates a critical task.		

TASK PERFORMANCE SUMMARY BLOCK

ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS & PERFORMANCE MEASURES EVALUATED							
TOTAL TASK STEPS & PERFORMANCE MEASURES "GO"							

Appendix II: Live Fire Guidance Example

SUBJECT: Eagle Training Note #1, Live Fire Exercises (LFXs)

1. Purpose. The purpose of this Eagle Training Note is to provide guidance on the conduct of safe and realistic Live Fire Exercises (LFXs) for all soldiers and leaders assigned and attached to the 101st Airborne Division (Air Assault).

2. General. For the 101st to be successful on the battlefield, leaders must know the capabilities of their weapons and soldiers. Commanders use LFXs to train under warlike conditions; therefore, the execution of LFXs is an integral part of maintaining combat readiness. Thorough planning, coordination, and execution are essential to the development of these exercises, just as they are for real-world missions. For a commander's training strategy to be productive, he must train the trainer. If unit leaders are not properly trained first, then resources are wasted and death or injury may occur. Leaders will train safely and realistically. We must attain the highest level of realistic training while ensuring the safety of our soldiers. We would do no less in combat.

References.

a. Army Regulation 385-63, Policies and Procedures for Firing Ammunition for Training, Target Practice, and Combat, dated 15 October 1983.

b. DA Pamphlet 350-38, Standards in Weapons Training, dated 3 July 1997.

c. CAM Regulation 385-5, Range Regulations, dated 3 May 1999.

d. Training Circular 7-9, Infantry Live-Fire Training, 30 September 1993.

e. CAM Regulation 385-5, Range Regulations, dated 3 May 1999.

f. Eagle Training Note #4, Risk Management, dated 12 May 1997.

4. Risk Management. Risk management is the process of identifying the risks associated with an operation and weighing those risks against the overall training value to be gained. Risk management is part of pre-execution checks and integrates safety into the mission.

a. Prior to Live Fire. The Range Officer in Charge (OIC) and Range Safety Officer (RSO) will conduct a range walk with Range Division. This range walk will identify range fans, schemes of maneuver, and other issues. The Range OIC/RSO will then complete Surface Danger Zone (SDZ) overlays and a Fort Campbell Form 4162, Risk Analysis Worksheet, to be signed by the validating authority (paragraph 6).

The joint range walk with Range Division confirms that the unit's plan conforms to appropriate Army and Fort Campbell regulations, policies, and procedures.

b. During Live Fire.

(1) Unit commanders will revise their risk analysis whenever tasks, conditions, or standards change. Units will conduct a detailed mission risk analysis in accordance with FC Form 4162 and brief this as part of the operations order. The risk analysis will identify potential dangers and any control measures or additional training that are required to minimize them. It is the unit's responsibility to conduct the revised risk analysis, not Range Division's.

(2) Should a risk analysis result in a "High Risk" rating, the validating authority will be notified prior to continuing the exercise. The chain of command will then apply controls to mitigate and reduce risks back to an acceptable level.

5. Safety. In order to combat readiness, the chain of command will act as safety officers. Commanders are the senior safety officers for LFXs. Commanders may not delegate this responsibility. Commanders, as validating authorities prescribed in paragraph 6, will be present on the range for the conduct of live fires. The only authorized exception is for platoon live fires during Gold Cycle. The battalion commander will remain the validating authority, but (with brigade commander concurrence) may authorize a field grade officer or the battalion command sergeant major to be present on the range during the LFX. Such an exception will be included in the Gold Cycle Brief (GCB) and as part of the risk management process. Range Division personnel assist the unit in understanding and employing appropriate administrative requirements; however, the unit chain of command and, ultimately the commander, is the senior safety officer. As in combat, leaders will make adjustments on the battlefield when conditions are not properly set. Once conditions are set, the unit will continue its mission.

a. All Range OICs/RSOs must attend a Range Safety Briefing at Range Division and be certified by their battalion or separate unit commander IAW CAM Regulation 385-5. All demolition safeties will be certified by the commander of 326th Engineer Battalion. In addition, Range OICs/RSOs must meet the following rank requirements:

Range OIC: SFC or above

RSO: SSG or above

b. The RSO's only duty will be to assist the commander by monitoring the safety of the exercise. The RSO will ensure that risk analysis control measures are enforced and advise the commander of any events that are in violation of these control measures. The RSO will not be an evaluator.

- c. All soldiers will receive a safety briefing from the Range OIC or RSO prior to training.
- d. All exercises will require a minimum of one safety or Observer Controller (OC) per stationary/support unit and each maneuver element. Maneuver elements conducting demolitions must have a safety/OC in the rank of SSG or above.
- e. Any changeover of range personnel assigned as a Range OIC, RSO, or safety will be preceded by a thorough briefing from the current Range OIC. This will be followed by a physical walk of the lane to ensure the individual understands his job requirements.
- f. Only weapons and ammunition approved for use on that particular range (coordinated and approved through Range Division Safety) will be utilized during the LFX. Any field expedient or non-standard ordnance must be approved IAW DA Pamphlet 350-63.
- g. Every effort will be made to ensure safety limitations and range configuration do not require soldiers to use combat firing techniques that would not be used in actual combat. If safety or terrain limitations do require unrealistic actions to be taken, the soldiers should be briefed, in detail, on why certain actions are required and what the unit would do if confronted with a similar situation in combat.
- h. Units will remain tactical throughout the exercise. There will be no administrative training distracters such as tents, ammunition points, and vehicles. When this support is required, it will be hidden from plain view and camouflaged.
- i. All exceptions to established range policies and regulations must be approved by the Range Division Safety Section. The unit will provide the safety section with range fans and the scheme of maneuver.

6. Range Validation.

- a. Prior to the conduct of any LFX, the validating authority, company commander(s), Range OICs, and RSOs will all participate in a Tactical Exercise Without Troops (TEWT) to certify the range. The TEWT will cover the concept of operation for the live fire, range constraints and limitations, direct and indirect fire plan, targetry, OC coverage, safety procedures, and the unit's training plan. Hand off of ranges between units will occur only if all of the responsible leaders were present during the TEWT.

UNIT SIZE	VALIDATION/APPROVAL AUTHORITY
Battalion	ADC(O)/ADC(S)
Company	Brigade Commander
Company (Separates)	Separate Battalion Commander
Platoon	Battalion Commander
Squad	Company Commander

b. Commanders, as prescribed in the above table, are the ultimate approval authorities for live fire operations training conducted IAW appropriate regulations. Commanders assess and minimize identified risks by employing specific controls. The unit commander is the final safety officer for a unit LFX. LFXs planned IAW appropriate regulations, safety fans, and administrative procedures may proceed only if the unit commander assesses the situation as safe to conduct training. No other individual or agency can assume this responsibility.

7. Standard Training Sequence. Commanders preparing their units for LFXs will utilize a crawl, walk and run approach. This concept requires units to familiarize key leaders with the live fire range and then conduct a series of blank fire rehearsals under the same conditions the unit will experience during live fire iterations prior to conducting the culminating LFX. The requirement to conduct blank fires under the same conditions of the LFX requires units to conduct a day blank fire iteration prior to a day live iteration. Similarly, units planning to conduct night live fire iterations must first conduct a night blank fire iteration. The normal sequence for live fire training includes day blank fire – day live fire; night blank fire – night live fire. All live fires will consist of three separate phases: crawl (key leader walk through), walk (blank fire), and run (LFX). Each iteration of the training process will conclude with an AAR. The phases of live-fire training are outlined below:

a. Crawl-Key Leader Walk Through. This must be conducted on the LFX objective. Unit leadership will conduct a walk through on the objective until the chain of command and RSO are satisfied the unit is prepared to conduct blank fire training. The walk through will ensure key leaders and safeties fully understand both the unit's tactical plan and range safety limits including range fans and other administrative requirements.

b. Walk-Blank Fire. This phase should normally be conducted on the LFX objective. The blank fire iteration must be conducted under the same conditions as the live fire scenario including the ground tactical maneuver plan, personnel participation, and visibility. Units must conduct blank fire iterations before both day and night live fire iterations. Commanders will continue to conduct blank fire iterations until fully satisfied a unit is prepared to conduct either day or night live fire. All blank fires must precede live fire iterations by not more than 24 hours to ensure soldier familiarity with scenario and sequence. As stated above, live fires are done

under the same conditions of the blank fire. Changes in unit leadership, task organization, or the introduction of a new soldier between blank and live iterations require the unit to conduct another validating blank fire iteration.

c. Run LFX. A final safety brief will be given to all soldiers prior to the actual live fire.

8. Alternate Training Sequence. The above listed training sequence is the norm for most units. Infantry units who have reached an exceptionally high level of LFX proficiency, as demonstrated through recent exercises, may, with the ADC(O)'s approval, conduct blank fires on a similar offset objective that is of similar scale, terrain, and target array. Offset blank fires should be the exception to the crawl-walk-run methodology rather than the norm. The decision to conduct an off-set blank fire must be made using a thorough and detailed risk assessment with all appropriate control measures. Units will continue to conduct blank fires on the offset objective until the chain of command and RSO have verified that the unit can safely conduct the exercise to standard using live munitions on the actual live fire objective. Only when the chain of command's assessment justifies that the unit is capable of executing this revised training sequence should the unit do so. All other aspects of the standard training sequence remain in effect including the conduct of day and night blank fire iterations prior to day and night live iterations respectively. Although not required, a control measure frequently used by the chain of command when executing offset blank fires is to conduct the key leaders' walk through on the actual live fire objective prior to conducting an off-set blank iteration. When this alternate training sequence is used, the battalion commander must be present (this is not waivable).

9. Types of Ranges. Below is a list of LFXs that can be conducted at Fort Campbell. Units must follow the Standard or Alternate Training sequence for all maneuver ranges. An exercise can be classified in more than one category and is subject to the restrictions in each category. All ranges require a risk assessment prior to conducting training.

a. Static Range. This range involves no movement once firing begins. Static ranges have a pre-determined firing line and are typically used for ambushes (minus the assault phase), defensive LFXs, and also include demolition areas and indirect firing points. Units must conduct key leaders' walk through and dry fire with all personnel prior to execution. Commanders may require blank fire iterations prior to static ranges.

b. Maneuver Range. This range involves the conduct of fire and movement. This includes movement to contact, react to contact, and ambushes that require troops to move forward of the firing line. If a soldier/unit is required to move in front of the firing line (emplace Claymore or demolition, search objective, etc), all

other soldiers will immediately place their weapons on safe and firing will not begin again until leaders/safeties have accounted for all soldiers. Units will not conduct a night fire until they have successfully completed day blank and live fires and a night blank fire. All blank and live night maneuver LFXs will be conducted utilizing all night

vision devices available to the unit (NVGs, PAQ-4s, etc). Unit commanders will ensure soldiers are properly trained and have zeroed appropriate vision enhancing devices.

c. Demolition Ranges. Minimum safe distance for all demolitions is 300m unless formally waived in writing by the Commanding General. The only exception to this policy is on Range 42 (see Enclosure 2).

10. Training Enhancers. The use of training enhancers is only limited to the trainer's imagination and adds realism to the conduct of the LFX. Leaders should make use of all available resources in order to create a realistic environment that familiarizes soldiers with the sights and sounds of a battlefield.

a. Use of Multiple Integrated Laser Engagement System (MILES). To enhance safety and provide realism, all soldiers should wear MILES harnesses. Safety personnel can use controller guns to assess casualties if soldiers expose themselves to hostile fire or become safety hazards. Use of MILES includes casualty cards that replicate gunshot and fragmentation injuries.

b. Use of OCs. OCs can either augment or replace safeties assigned to maneuver elements. OCs assist the commander by tracking minimum safe distances during indirect fire missions, assessing casualties, controlling targetry, stopping unsafe acts, and assisting in the preparation of AARs. They allow the chain of command to focus on the battle without unrealistic distractions. If OCs are utilized and take the place of safeties, one should be assigned to every maneuver element conducting the LFX.

c. AARs. The AAR is the most important aspect of training. It identifies strengths and weaknesses of the unit as well as future training requirements. AARs will be conducted at the lowest level possible.

(1) AARs are required upon completion of each phase of training (crawl, walk, and run). The final AAR should be conducted on the objective, if possible.

(2) At a minimum, the AAR will include training objectives, mission review, enemy situation, collective task assessment in terms of strengths and weaknesses, and any needed changes to TTPs, or safety issues arising from a blank or live iteration. AAR formats may vary based upon the type of LFX conducted. Personnel conducting AARs should make every effort to ensure that the AAR is conducted on the objective or in a position from which the unit can see the objective, and ensure that the proper AAR tools are present, such as a terrain model,

sketches, and overlays. AAR facilitators should plan for sheltered locations in the event of inclement weather in order to prevent distractions from learning.

Battlefield Effects.

(1) Targetry. Targets must be emplaced to replicate how the enemy will fight. The construction of the objectives must be doctrinally correct. The targets must portray a life-sized realistic and credible enemy force that fights back and inflicts casualties through the use of MILES fireback devices (if available).

(2) Casualties. Treating and evacuating casualties are an integral part of LFXs. All LFXs should include the use of collection, evacuation, and treatment procedures.

(3) Non-combatants. In many scenarios, civilians may be present on the battlefield and will cause soldiers to react according to established rules of engagement. Targets may also be dressed in civilian clothes to replicate civilians on the battlefield.

11. Summary. Realistic LFXs are critical to training and combat readiness. LFXs allow our soldiers to train under similar conditions to what they may experience on combat. The ability to cope with the stress and dangers of LFXs, and the discipline, confidence and esprit that are developed in both the individual soldier and his unit, cannot be over emphasized. The conduct of live fire training exercises is a Green Tab issue. It is imperative that leaders conduct the planning, training, and risk assessment necessary to safely and realistically execute LFXs to the 101st Airborne Division (Air Assault) standards.

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